10

15

20

25

30

5

W

Claims:

- Enamel composition for producing reflecting dielectric layers in plasma display panels, comprising as layer forming constituants 70 to 97% by weight of a glass frit composition having a softening temperature of less than 600°C and 3 to 30% by weight of a particulate whitening material, characterized in that the whitening material consists of at least 50 % by wt. of one or more thermally deactivated white pigments, 0 to 50 % by wt. of other white pigments and 0 to 20 % by wt. of one more opacifiers and whereby the one or more thermally deactivated white pigments have been made by a process comprising heating of at least one white pigment in the absence or presence of a glass frit having a softening temperature of less than 600°C at a temperature of 600 to 1000°C for 0,1 to 10 hours.
- 2. Enamel composition according to claim 1, characterized in that the layer forming constituants comprise essentially 70 to 90 % by wt. of a glass frit composition having a softening temperature of less than 560 °C, 10 to 25 % by wt. of a deactivated white pigment which can be coated with a glass frit and 0 to 5 % by wt. of an opacifying agent.
- 3. Enamel according to claim 1 er-2, characterized in that the deacitvated white pigment is made from titanium dioxide.
 - 4. Enamel composition according to claims 1 to 3, characterized in that the deactivated white pigment is made by a process, comprising transferring of a white pigment into briquettes, heating said briquettes at 600 to 1000 °C for 0,3 to 3 hours and crushing the so treated briquettes.

5

20

point of less than 600 $^{\circ}\text{C}$ at a temperature of 600 to 1000 $^{\circ}\text{C}$ for 0,1 to 10 hours.

- 11. Method according to claim 10, characterized in that it comprises the steps: (i) transferring of a white pigment into briquettes, (ii) heating said briquettes at a temperature of 600 to 1000 °C for 0,3 to 3 hours and (iii) crushing the so treated briquettes.
- 12. Method according to claim 10, characterized that it comprising the steps: (i) preparing a homogeneous powder mixture of at least 50 % by wt. of a white pigment and up to 50 % by wt. of a glass frit having a softening temperature of less than 600 °C, (ii) transferring the mixture into briquettes, (iii) heating said briquettes at a temperature of 600 to 800 °C for 0,3 to 3 hours and (iv) crushing the so treated briquettes.
 - 13. Process for enamelling a glass substrate, comprising coating the substrate with an enamel composition consisting essentially of glass layer forming constituants dispered in a liquid or thermoplastic medium and firing the coated substrate on a temperature in the range of 600 to 680 °C, characterized in that an enamel composition as to claim 8 is used.
- 14. Process according to claim 13, characterized in that the coating is performed by screen printing followed by drying.
- 15. Plasma display panels comprising a first array of electrodes embedded in a dielectric layer on a rear substrate, a second array of electrodes embedded in a dielectric layer on a cover substrate and a pattern of a barrier for defining discharge spaces in between, characterized in that the dielectric layer on the rear substrate is a reflecting essentially white enamel made

by coating the substrate with an enamel composition according to any of the claims 1 to 9 and firing at a temperature in the range of 600 to 680 $^{\circ}$ C.

aldai